

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

LG PHILIPS LCD CO., LTD.,

Plaintiff,

v.

C.A. NO. 04-343-JJF

TATUNG CO., TATUNG COMPANY OF  
AMERICA, INC.; AND VIEWSONIC  
CORPORATION

Defendants

**SPECIAL MASTER OPINION AND ORDER ON CLAIM CONSTRUCTION**

This is an action for patent infringement brought by plaintiff LG. Philips LCD Co., Ltd. (“LPL”) against defendants Tatung Company and Tatung Company of America, Inc. (“Tatung”) and ViewSonic Corporation (“ViewSonic”), collectively (“Defendants”).

The matter is before the Special Master on the parties’ respective requests for the construction of disputed claim language of U.S. Patent No. 6,501,641 issued on December 31, 2002 (“the ‘641 patent”) and U.S. Patent No. 6,498,718 issued on December 24, 2002 (“the ‘718 patent”; collectively, “patents-in-suit”).<sup>1</sup> The parties have fully briefed their respective positions on the construction of disputed terms and argued them before the Special Master at a *Markman* hearing held on May 30, 2007. To the extent the Defendants disagree with one another about the construction of particular claim terms, the Special Master has addressed their respective positions. Jurisdiction is proper under 28 U.S.C. § 1338 (2000).

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<sup>1</sup> The asserted claims are claims 35, 36, 38, 39, 44, 45, 55, and 56 of the ‘641 patent and claims 33-36 and 40 of the ‘718 patent. The parties agree that similar terms in the patents-in-suit should be construed identically.

## I. LEGAL STANDARDS

Claim construction is a question of law. *Markman v. Westview Instruments, Inc.*, 52 F.3d 967, 977-78 (Fed. Cir. 1995), *aff'd*, 517 U.S. 370, 388-90 (1996). When construing the claims of a patent, a court considers the literal language of the claim, the patent specification and the prosecution history. *Markman*, 52 F.3d at 979. “[T]he specification ‘is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.’” *Phillips v. AWH Corp.*, 415 F.3d 1303, 1315 (Fed. Cir. 2005) (quoting *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576, 1582 (Fed. Cir. 1996)). The starting point for a claim-construction analysis, however, is the claims themselves. *Vitronics*, 90 F.3d at 1582.

Additional legal standards governing claim construction were recently summarized by this Court as follows:

A court may consider extrinsic evidence, including expert and inventor testimony, dictionaries, and learned treatises, in order to assist it in understanding the underlying technology, the meaning of terms to one skilled in the art, and how the invention works. *Phillips*, 415 F.3d at 1318-19; *Markman*, 52 F.3d at 979-80 (citations omitted). However, extrinsic evidence is considered less reliable and less useful in claim construction than the patent and its prosecution history. *Phillips*, 415 F.3d at 1318-19 (discussing “flaws” inherent in extrinsic evidence and noting that extrinsic evidence “is unlikely to result in a reliable interpretation of a patent claim scope unless considered in the context of intrinsic evidence”).

In addition to these fundamental claim-construction principles, a court should also interpret the language in a claim by applying the ordinary and accustomed meaning of the words in the claim. *Envirotech Corp. v. Al George, Inc.*, 730 F.2d 753, 759 (Fed. Cir. 1984). If the patent inventor clearly supplies a different meaning, however, then the claim should be interpreted according to the meaning supplied by the inventor. *Markman*, 52 F.3d at 980 (noting that patentee is free to be his own lexicographer, but emphasizing that any special definitions given to words must be clearly set forth in the patent). If possible, claims should be construed to uphold validity. *In re Yamamoto*, 740 F.2d 1569, 1571 & n.\*(Fed. Cir. 1984).

*Prism Techs. v. Verisign, Inc.*, 2007 WL 988564, at \*1 (D. Del. Apr. 2, 2007) (Farnan, J.). See also *Cephalon, Inc. v. Barr Labs. Inc.*, 389 F. Supp. 2d 602, 604 (D. Del. 2005) (Farnan, J.).

## **II. CLAIM CONSTRUCTION**

### **A. THE SUBJECT MATTER OF THE PATENTS-IN-SUIT**

The patents-in-suit are generally directed to the mounting of a flat-panel display device, such as an LCD (liquid crystal display) module, in a portable computer. In particular, the patents are concerned with fitting a larger display into a display case that has a fixed size. ‘641 patent, 2:37-39. The patents explain that the prior-art methods of front mounting an LCD device were inferior because those mounting features increased the size of the non-display area, thereby reducing the size of the viewing area of the device. ‘641 patent, 1:60-64. The patents-in-suit address that disadvantage by employing rear-mounting features that “provide a large display area with minimal display case size.” ‘641 patent, 2:37-38.

### **B. THRESHOLD CLAIM CONSTRUCTION ISSUES**

#### **1. The Claim Term “Rear Mountable” Excludes Front and Side Mounting**

The preambles of each claim of the patents-in-suit were amended during their prosecution to limit the flat-panel display device to one that is “rear mountable.” The parties agree that, although the term is recited in the preamble, “rear mountable” is a claim limitation. *Cf. Altiris, Inc. v. Symantec Corp.*, 318 F.3d 1363, 1371 (Fed. Cir. 2003) (quoting *Schumer v. Lab. Computer Sys., Inc.*, 308 F.3d 1304, 1310 (Fed. Cir. 2002)) (“It is well settled that if the body of the claim sets out the complete invention, and the preamble is not necessary to give ‘life, meaning and vitality’ to the claim, then the preamble is of no significance to claim construction because it cannot be said to constitute or explain a claim limitation.”). The parties disagree as to whether “rear mountable” excludes the front- and side- mounting features of the prior art.

LPL argues that: (a) no explicit claim language or “anchor” exists necessitating the exclusion of front and side mounting from the inventions, and that the claim language is in fact open-ended; (b) the purpose of the inventions have been mischaracterized as requiring the elimination of unnecessary side space; and, (c) the inventors did not clearly and unmistakably disavow front and side mounting.

In response, Defendants argue that: (a) the term “rear mountable” itself provides the anchor in the claim language limiting the inventions to no front or side mounting; (b) the purpose of the inventions is to eliminate unnecessary side space, which is accomplished only by excluding front and side mounting; and, (c) LPL repeatedly disclaimed and differentiated the inventions from the prior art of front and side mounting.

The Special Master turns to an examination of the parties’ arguments.

**a. “Rear-Mountable” Is Itself the Anchor Limiting the Claim Language to No Front and Side Mounting**

LPL asserts that there is no “anchor” that would allow reading into the claimed invention the negative limitation of excluding any type of mounting feature, such as front or side mounting. LPL relies on *Omega Engineering, Inc. v. Raytek Corp.*, 334 F.3d 1314 (Fed. Cir. 2003), for the proposition that a negative limitation cannot be read into the claims. In *Omega*, the Court concluded that the inventor had not clearly disavowed a negative limitation for two reasons. First, the court concluded that the claims contained no explicit language that anchored them to the negative limitation. *Id.* at 1322. Second, the court found that the inventor’s arguments during prosecution were ambiguous regarding the negative limitation because they were “amenable to multiple reasonable interpretations.” *Id.* at 1324. The Special Master is of the view that the present case is distinguishable from *Omega* because here, the inventors

specifically amended the claims to include the term “rear mountable,” which has the effect of acting as its own anchor to the negative limitation excluding front and side mounting. In addition, the inventors unambiguously and consistently differentiated the “rear mountable” invention from the front and side mountable prior art in order to obtain allowance of the applications.

In the Special Master’s view, the term “rear mountable” itself, when viewed in context of the prosecution history, provides the necessary anchor in the claim language to exclude front and side mounting. In this regard, the examiner initially determined that locating fastening parts on a rear surface of the device was obvious in view of the prior art. JA at Ex. G, JA 00314.<sup>2</sup> To traverse that rejection, the inventors added the term “rear mountable” to the claims to obtain allowance of the patents’ applications. JA at Ex. G, JA00376-379. The Special Master concludes, therefore, that “rear mountable” must necessarily encompass more than just “a fastening part at a rear surface of the first frame” as originally recited in the claims.<sup>3</sup> Although not specifically articulated in the examiner’s interview summary, the context of the prosecution history clarifies that “rear mountable” excludes front and side mounting. *See generally* JA at Ex. G, JA00367.

LPL further argues that the open-ended transitional phrase “comprising of” in the claims’ preambles, *see* ‘641 patent, claim 35 *et seq.*, supports its position that the claims do not exclude

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<sup>2</sup> References hereto to the Joint Appendix or Exhibits (D.I. 388, 391, 392, 393) shall be cited as JA\_\_\_\_.

<sup>3</sup> LPL agrees that “rear mountable” encompasses something more than a “fastening part at a rear surface of the first frame.” LPL argues, instead, that the “something more” is the location of the fastening element, i.e., “located on or inside the border of the flat display panel.” As will be discussed more fully herein, however, the intrinsic evidence provides no support for that particularized location of the fastening element. In contrast, the inventors discuss the disadvantages of front and side mounting throughout the intrinsic record.



additional, non-recited elements. *See Crystal Semiconductor Corp. v. TriTech Microelectronics Int'l, Inc.*, 246 F.3d 1336, 1348 (Fed. Cir. 2001) (“[T]he transition ‘comprising’ creates a presumption that the recited elements are only a part of the device, that the claim does not exclude additional, unrecited elements.”). While the Special Master agrees that the phrase “comprising of” is a patent-drafting vehicle which results in a presumption that the claim is not limited by non-recited elements, the presumption can be rebutted by a clear disavowal in the intrinsic record. As will be seen, the Special Master concludes that a disavowal is clear in the present case.

***b. The Inventions’ Purpose Is to Eliminate Unnecessary Side Space***

The inventors’ arguments made during prosecution of the patents-in-suit were completely consistent with the stated purpose of the inventions: namely, the elimination of the unnecessary side space created by the prior-art mounting mechanisms. In this regard, the common specification of the patents-in-suit<sup>4</sup> state that the objects of the inventions are “to minimize the non-display area of the LCD device” and “to provide a computer having a flat panel display device with a maximum display area and a minimal display case size.” ‘641 patent, 2:47-51.

LPL asserts, in substance, that notwithstanding the stated objects, the actual object is to ***allow***, not ***require***, the elimination of unnecessary side space. In this regard, LPL relies on a single statement in the common specification that the invention “***does not require*** unnecessary side space for mounting the LCD device.” ‘641 patent, 7:31-34 (emphasis supplied). LPL attempts to harvest from this one statement that the patents, in addition to teaching rear mounting, also teach the choice of either eliminating or not eliminating the unnecessary side

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<sup>4</sup> The specifications of the ‘641 and ‘718 patents are identical, and referred to herein as the “common specification.” To the extent that the Special Master references the ‘641 patent, it should be understood that the reference is to both patents-in-suit.

space of the prior art. In the Special Master's view, LPL's reliance on this statement is substantially weakened by the sentence immediately following, which reiterates the patents' purpose: namely, "the ratio of the display area of the LCD device to the display case can be improved and maximized." '641 patent, 7:33-35.

Therefore, viewed in context of and informed by the common specification, the Special Master concludes that one skilled in the art would understand that the very character of the inventions is side-space elimination to optimize the display area of the screen.<sup>5</sup>

Moreover, nowhere in the intrinsic evidence do the inventors discuss using rear-mounting features in addition to front- or side- mounting features. Notably, the inventors of the '641 and '718 patents are also identified as inventors on a co-pending patent, U.S. Patent No. 6,411,501 ("the '501 patent"). The '501 patent is directed to using the *combination* of back with side mounting. Had the inventors contemplated that the scope of the patents-in-suit extended to the combination of rear with front or side mounting, they were under a duty of disclosure to inform the examiner of the '641 and '718 patent applications that the '501 patent application covered the same subject matter. As the inventors did not cross-reference the '641, '718, and '501 applications in any of those applications, the Special Master concludes that the inventors did not contemplate the subject matter of the '641 and '718 patents overlapped with the subject matter of the '501 patent

Instead, the inventors consistently referred to the invention as solving the problem of unnecessary side space caused by the prior art's mountings, thereby maximizing the display area. *See, e.g.*, '641 patent, 2:37:39 ("To solve the above problem and to provide a large display area

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<sup>5</sup> Adopting the LPL position would, in the Special Master's view, result in an invention that simply added a rear-mounting feature – an invention that the examiner rejected as obvious.

... a new mounting structure is needed for the LCD device.”). In the Special Master’s view, LPL’s assertion of choice of elimination of unnecessary side space is further belied by its opening claim-constructing brief and its statement therein that the rear mounting capability of the patents “significantly increases the viewing area relative to the total monitor area by eliminating the ‘unnecessary side space’ caused by the prior art flanges.”<sup>6</sup> LPL Opening Brief (D.I. 370) at 4.

Finally, the stated purpose of the inventions is further supported by the common specification’s explanation of the prior art’s front-mounting structure and the deficits of that arrangement:

Hereinafter, the way in which the LCD device is mounted to the case from the front toward the rear direction is defined as the **front mounting method**, and the assembled structure of the LCD device and the case formed through the front mounting method is defined as the front mounting structure.

**In the front mounting structure** of the LCD device, since the protrusions 136a require additional space corresponding to the protruded width d, **the display area of the LCD device is reduced** in comparison to the fixed size of the display case 122.

‘641 patent, 1:49-63 (emphasis supplied).

In the mounting structure shown in FIG. 3B, the supporting frame 114 requires side spaces for the flanges 114a and 114b. Therefore, **the side space D (d1+d2) results in a reduction of the display area** of the LCD panel 112 relative to the display case 122.

‘641 patent, 2:29-34 (emphasis supplied).

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<sup>6</sup> LPL’s offer of inventor Cho’s testimony regarding the purpose of the invention is not persuasive, as the inventor self-servingly mouthed LPL’s proposed claim construction for “rear mountable.” Testimony of the inventor is entitled to little weight, and in any event, may not be used to contradict the intrinsic evidence of a claim’s meaning. *See Markman*, 52 F.3d at 985 (holding that inventor testimony as to “[t]he subjective intent of the inventor when he used a particular term is of little or no probative weight in determining the scope of a claim (except as documented in the prosecution history) ”); *Bell & Howell Document Mgmt. Prods. Co. v. Altek Sys.*, 132 F.3d 701, 706 (Fed. Cir. 1997)(“The testimony of an inventor often is a self-serving, after-the-fact attempt to state what should have been part of his or her patent application . . .”).



The Special Master concludes that to accept LPL's proposed construction would extend the claim scope to a flat-panel display device with fastening elements for front and side mounting even though such a device would suffer from the prior-art deficiencies of unnecessary side space, the very problem the patents purport to solve.<sup>7</sup>

*c. The Inventors Clearly and Unmistakably Disavowed Front and Side Mounting*

Although "[c]laim construction begins with the language of the claims" consideration must be given to "whether the applicant clearly and unambiguously disavowed [any interpretation] during prosecution in order to obtain claim allowance." *3M Innovative Props. Co. v. Avery Dennison Corp.*, 350 F.3d 1365, 1371 (Fed. Cir. 2003) (internal quotations and citation omitted). Moreover, claims must also be construed to include a limitation where the limitation is the "very character of the invention." *Alloc, Inc. v. I.T.C.*, 342 F.3d 1361, 1370 (Fed. Cir. 2003).

As has been pointed out above, during prosecution of the patents, the inventors amended the claims to include "rear mountable" in response to the examiner's rejection of the claimed invention as being unpatentable over the prior art, particularly U.S. Patent No. 5,835,139 to Yun et al. (hereinafter "Yun"). JA at Ex. G, March 12, 2002 Preliminary Amendment, JA00376-398. Yun teaches removing the space needed for front mounting to increase the viewing area relative to the whole area of the computer display. Yun patent, 5:20-29. As an alternative to front mounting, Yun also teaches mounting an LCD device in a portable computer using screws that protrude beyond the side edges of the LCD device. Yun patent, 5:10-16. Importantly, the inventors consistently argued to the examiner that the prior art, including Yun, used mounting features *other than the rear mounting of the claimed invention*, such as front or side mounting.

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<sup>7</sup> See hypothetical Fig. H7 of Tatung's Responsive claim construction brief (D.I. 666) at 5 showing fastening elements under LPL's definition that would not eliminate unnecessary side space.

It was not until the claims were amended to specifically recite “rear mountable” that the examiner finally allowed the applications for the patents.

LPL asserts that nowhere in the prosecution file history do the inventors expressly say that “rear mountable” is not front or side mounting. While this is a correct statement, the prosecution history is replete with the inventors’ arguments distinguishing the rear-mountable invention from the front- or side- mounting prior art. The inventors consistently argued that the prior art did not disclose a fastening element on a rear surface, but instead had front- or side-mounting features which lacked the advantages of the claimed invention – consequently, the claimed invention was patentable over the prior art.<sup>8</sup>

The Special Master concludes that, notwithstanding the absence of an explicit disclaimer, the consistent association of rear mounting with the elimination of unnecessary side space clearly limits the scope of the claimed invention. *Cephalon, Inc. v. Barr Labs., Inc.*, 389 F. Supp. 2d 602, 606 (D. Del. 2005) (court excluding liquid from the claimed invention because the inventors consistently referred to the “present invention” as teaching the formation of drug-containing lollipops through the compression of “dry” or “solid” powers); *O.I. Corp. v. Tekmar Co. Inc.*, 115 F.3d 1576, 1581 (Fed. Cir. 1997) (explaining that one skilled in the art would conclude that the term “passage” does not encompass a smooth-walled structure because the written description associates that term with non-smooth and expressly distinguishes over smooth-walled

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<sup>8</sup> For example, the inventors argued to the examiner that U.S. Patent No. 5,268,816 (hereinafter “Abell”) “does not include a fastening element on a rear surface of the display device ... Abell is directed to a computer with a front-mounting technique ... [t]herefore, Abell ‘816 cannot provide the advantages of the claims invention.” See JA at Ex. G, JA00270. The inventors further argued that “[i]n contrast to claims 35, 47 and 55, Yun is directed toward a side-mounted flat panel display device ... Yun does not include any fastening elements on a rear surface of the frame, as claims 35, 47, and 55.” See JA at Ex. G, JA00271. The inventors also argued that “[i]n contrast, Abell, Jr. et al. discloses a front mounted LCD display while the instant invention utilizes a rear mounted display.” See JA at Ex. G, JA00362.

prior art passages). Moreover, it follows that to accomplish the goal of eliminating unnecessary side space, the claimed invention must exclude the use of front and side mounting features.

*Power Integrations, Inc. v. Fairchild Semiconductor Int'l, Inc.*, 422 F. Supp. 2d 446, 455 (D. Del. 2006) (rejecting the construction of “frequency jittering” as overbroad because the object of the invention, reduction of EMI noise, cannot be achieved if the jittering is not controlled and predetermined).

Having stated the above, and in view of inventors’ consistent position throughout the prosecution of both patents and the invention’s objective of overcoming the disadvantage of unnecessary side space, the Special Master concludes that the inventors disclaimed front and side mountings.

## **2. The Claims Are Not Limited to a Portable Computer**

LPL would construe the claims of the invention as not being limited to a portable computer. LPL argues that limiting the invention to a portable computer improperly reads the preferred embodiment into the claims. Additionally, LPL contends that inserting the “portable computer” limitation into the claims would contradict the plain language of the asserted claims, none of which recite the term “portable computer.” Moreover, LPL asserts that reading the “portable computer” limitation into the claims would violate the doctrine of claim differentiation, which holds that “[t]here is presumed to be a difference in meaning and scope when different words or phrases are used in separate claims.” *Comark Commc’ns, Inc. v. Harris Corp.*, 156 F.3d 1182, 1187 (Fed. Cir. 1998).

Defendants seek to limit the patents-in-suit to a portable computer. The crux of the Defendants’ argument is that the patents describe and illustrate a portable computer and no other embodiment. As such, the portable computer is not the preferred embodiment, but is rather the

only embodiment. Defendants reference numerous instances in which the patents describe or depict the invention as a portable computer including: the patents' titles, abstracts, summaries, and various places throughout the common specifications.<sup>9</sup>

Defendants also argue that the terms "housing" and "data processing device," as construed by them, link the claims to a portable computer. With respect to "housing," Defendants argue that, based on the prosecution history, "housing" should not be accorded its ordinary meaning. In this regard, Defendants submit that the inventors acted as lexicographers when, in response to an objection raised by the examiner, they explicitly defined "housing" in connection with a portable computer. Additionally, Defendants note that "portable computer" was specifically called out in the examiner's statement of reasons for allowance. Finally, Defendants assert that because "data processing device" is associated with the term "housing" in all of the asserted claims, it too is limited to a portable computer.<sup>10</sup>

The Special Master turns to an examination of the parties' arguments.

***a. The Common Specification Is Not Limited to the Portable Computer Embodiment; Thus, the Claims Cannot Be So Limited***

Claims are not necessarily limited to those embodiments disclosed in the specification, even if a patent describes only a single embodiment. *See e.g., Phillips*, 415 F.3d at 1323; *Liebel-Flarsheim Co. v. Medrad, Inc.*, 358 F.3d 898, 906 (Fed. Cir. 2004). The *Phillips* court said, "[t]hat is not just because section 112 of the Patent Act requires that the claims themselves set forth the limits of the patent grant, but also because persons of ordinary skill in the art rarely

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<sup>9</sup> Defendants note that at the conclusion of the specification, the inventors reference only a portable computer, thereby confirming that the invention is limited accordingly. '641 patent, 7:46-50.

<sup>10</sup> Tatung also asserts that the ordinary and customary meaning of "data processing device" is a central processing unit of a computer.

would confine their definitions of terms to the exact representations depicted in the embodiments.” *Phillips*, 415 F.3d at 1323.

In *Liebel-Flarsheim*, the Federal Circuit overturned the district court which construed all of the asserted claims to require a pressure jacket even though none of those claims expressly recited a “pressure jacket.” The Federal Circuit recognized that the “pressure-jacketed injector” embodiment was the only subject matter described in the specification; however, the court rejected the conclusion that the claims must therefore be limited to that embodiment. *Liebel-Flarsheim*, 358 F.3d at 905, 906. The Federal Circuit reiterated that the claims should be so limited only if the patentee has demonstrated a clear intention to limit the invention using “words or expressions of manifest exclusion or restriction.” *Id.* at 906 (quoting *Teleflex Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1327 (Fed. Cir. 2002)). Importantly, the Federal Circuit concluded that the standard is not met by the mere absence of any reference to alternative embodiments. *See id.* at 906, 907. Instead what is required is a clear exclusion of other embodiments, such as by distinguishing embodiments of the prior art. *Id.*

Accordingly, even assuming the patents-in-suit expressly teach only one embodiment, i.e., a portable computer, under both *Phillips* and *Liebel-Flarsheim*, the asserted claims should not be limited to that one embodiment.<sup>11</sup> As in *Liebel-Flarsheim*, the common specification of the patents-in-suit is replete with descriptions of the invention with respect to a single embodiment of a portable computer, including the abstract and title. At the same time, nothing in the common specification expressly precludes other embodiments or restricts the invention to

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<sup>11</sup> LPL argues that other embodiments are disclosed and cites, for example, “[a]s a flat panel type display device 111, the LCD is widely used in portable computers and flat screen monitors.” ‘641 patent, Col.1:32-34. However, one skilled in the art would understand that statement as merely teaching that LCDs themselves are well known.



only a portable computer. *Id.* The mere absence of a description of alternative embodiments in the common specification such as a flat screen monitor does not, in the Special Master's view, rise to the level of "words of manifest exclusion or restriction."<sup>12</sup> Thus, because: (1) the asserted claims do not specifically recite "portable computer"; and (2) the intrinsic record is silent regarding alternative embodiments and therefore contains no clear disavowal of other embodiments, the Special Master concludes the invention should not be limited to a "portable computer."

***b. Two Distinct Claim Groups Demonstrate that the Invention Encompassed More than Just a Portable Computer***

Two distinct groups of claims were included with the originally-filed and subsequently-issued patents-in-suit. JA at Ex. G, JA00119-128; Ex H, JA 001057-1065. The first group of claims explicitly recite a "portable computer" (claims 1-34 of the '641 patent and claims 1-32 of the '718 patent); the second group of patented claims recite a rear-mountable flat-panel display device (claims 35-56 of the '641 patent and claims 33-41 of the '718 patent) without any limitation to a portable computer. The Special Master concludes that the distinct recitations in the first and second groups of claims make it apparent that the inventors intended different scope of coverage for those two groups.

Although not argued by the parties, in the Special Master's view, as an initial matter, "[t]he claims as filed are part of the specification, and may provide or contribute to compliance with § 112." *Hyatt v. Boone*, 146 F.3d 1348, 1352 (Fed. Cir. 1998). In the present case, both groups of claims were filed with the original applications associated with the '641 and '718

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<sup>12</sup> In contrast, the inventors manifestly restricted the claims to "rear mountable" by arguing rear mounting advantages over the inferior front- and side- mounting disadvantages of the prior art.

patents, thereby qualifying as part of the common specification.<sup>13</sup> The two groups of claims are unquestionably distinct: one set specific to a portable computer and one set specific to a flat panel display device and silent with respect to a portable computer. The second group of claims, which do not recite “portable computer,” thus teach a non-portable-computer embodiment. In the Special Master’s view, this demonstrates that the inventors understood that their inventions covered more than just a portable computer.

Additionally, different claims of a patent presumptively have different scope. *Comark*, 156 F.3d at 1187.

“As a general rule a limitation cannot be read into a claim to avoid infringement” Where ... the limitation sought to be “read into” a claim already appears in another claim, the rule is far more than “general.” It is fixed. It is long and well established. It enjoys an immutable and universally applicable status comparatively rare among rules of law. Without it, the entire statutory and regulatory structure governing the drafting, submission, examination, allowance, and enforceability of claims would crumble.

*D.M.I., Inc. v. Deere & Co.*, 755 F.2d 1570, 1574 (Fed. Cir. 1985) (citations omitted). The Special Master is of course mindful that claim differentiation may be overcome by an unequivocal disavowal of subject matter in the intrinsic evidence. *See Kraft Foods, Inc. v. Int’l Trading Co.*, 203 F.3d 1362, 1367-68 (Fed. Cir. 2000) (finding the written description and prosecution history overcame any presumption arising from the doctrine of claim differentiation). That the common specification arguably teaches only a single embodiment does not in and of itself establish a clear disclaimer that would overcome the presumption. The result is, therefore, that the portable-computer limitation should not be read into the second group of claims.

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<sup>13</sup> Exceptions include claim 56 of the ‘641 patent and claims 39-41 of the ‘718 patent.

In the Special Master's view, the prosecution history is consistent with the presumption of claim differentiation. Throughout the prosecution history, both the examiner and the inventors addressed each group of claims separately. For example, the examiner referred to a portable computer only when addressing the claims of group one (e.g. claims 1-34 of the '641 patent) and referred to flat-panel display device only when addressing the claims of group 2 (e.g., claims 35-43, 47-50, and 54-55 of the '641 patent).<sup>14</sup> JA at Ex. G, JA00216-219, 312-315. Similarly, the inventors kept separate the patentability arguments regarding each of the two groups of claims. For instance, in the January 17, 2001 Amendment in response to the examiner's separate rejections of claims 1-34, and claims 35-43, 47-50, 54-55, the inventors characterized independent claim 1 as "drawn to a portable computer" and independent claim 35 as "drawn to a flat panel display device." See JA at Ex. G, JA00268 and JA00270. At no time did the inventors refer to a portable computer when arguing the patentability of the second group of claims.

Having stated the above, although the common specification may only describe the invention with respect to a portable computer, where the two distinct groups of claims were originally filed and granted together, the Special Master concludes that the inventors contemplated a broader scope for the invention than a portable computer, and did not clearly disavow embodiments other than a portable computer.

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<sup>14</sup> The examiner's reference to a portable computer in his statement of reasons for allowance of the '641 patent was, in the Special Master's view, merely a shorthand summary of the claimed invention, which included the first group of claims specifically directed to a portable computer. Moreover, the inventors' silence after the examiner's statement "cannot amount to a clear and unmistakable disavowal." *Salazar v. Procter & Gamble Co.* 414 F.3d 1342, 1345 (Fed. Cir. 2005).

## **C. CLAIM CONSTRUCTION OF DISPUTED TERMS**

### **1. Stipulated Terms**

The Special Master also agrees with the parties that the terms “attaching,” “fastening,” “fixing,” “fixed,” and “mounted” should be construed as attaching (or attached) firmly and fixing (or fixed) securely so as to be supported.

The Special Master agrees with the parties that the term “flat display panel” should be construed as “the component within a flat panel display device on which the image appears.”

### **2. Rear Mountable**

#### ***a. The Parties’ Constructions***

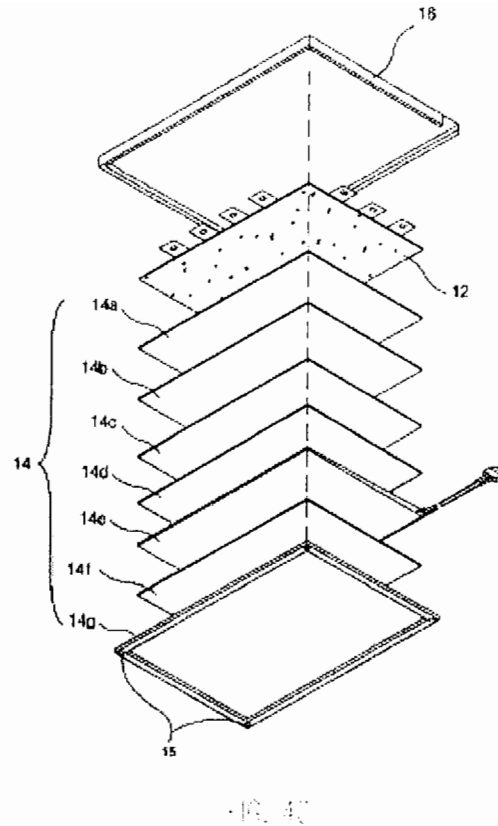
LPL asserts that the term “rear mountable” means “capable of being substantially supported with the rear housing via a fastening part(s) located on the rear surface of the first frame and positioned *on or inside the border of the flat display panel.*” LPL Opening Brief (D.I. 370) at 8 (emphasis supplied).

Defendants argue “rear mountable” excludes front and side mounting and that the term is not limited to a specific location of the fastening parts with respect to the flat display panel.

#### ***b. The Special Master’s Construction***

As discussed above, by amending the claims to include “rear mountable” and distinguishing the prior-art mountings both in the common specification and the prosecution history, front and side mounting were expressly disclaimed. Thus, front and side mounting are excluded from “rear mountable.”

LPL urges that “rear mountable” means the fastening elements cannot be just anywhere on the rear surface of the device, but must be “on or inside the border of the flat display panel.” LPL identifies Figures 4C and 10 of the patents-in-suit as supporting that construction.



Neither of the referenced figures – indeed none of the figures – depict fastening elements that are located “on or inside the border of the flat display panel.” Moreover, in discussing Figures 4C and 10, the patents are completely silent about the location of the fastening elements relative to the flat display panel. ‘641 patent, 4:12-41, 6:16-52. LPL relies on the broken line in Figure 4C (above) as proof that the fastening elements 15 must be positioned on or inside the border of the flat-display panel 12. It is the Special Master’s view that the broken line simply indicates that the displayed components are sandwiched together as a single device, as the patents state, and not that the fastening elements are on or inside the border of the flat panel display. Additionally, although the broken line appears to align with one corner of the panel 12, that apparent alignment does not necessarily mean the fastening elements 15 fall on or inside the



border of the panel 12. In fact, at least two of the other three corners of the panel 12 do not align with the corners of the frame 14g having the fastening elements 15:

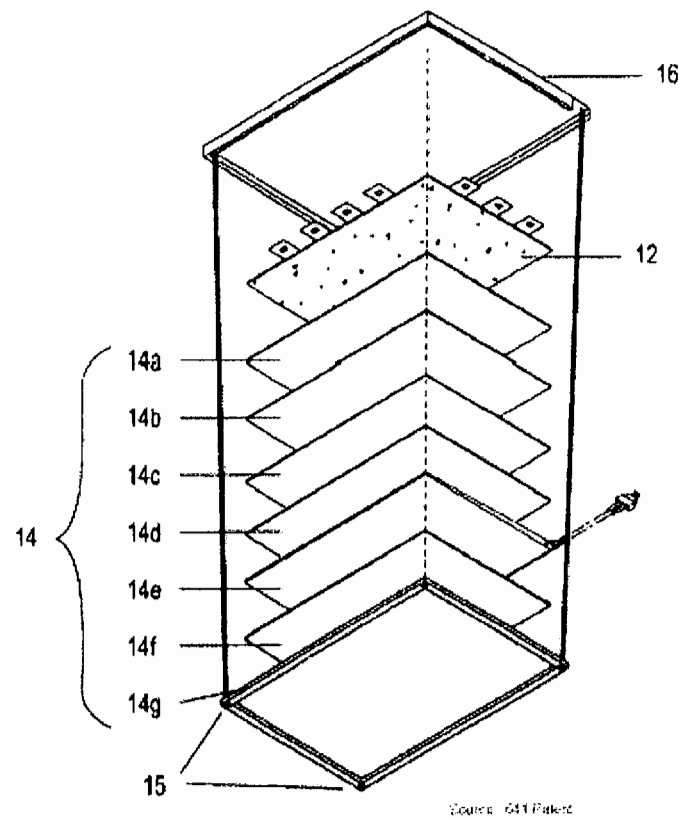


Figure 4C is therefore, at best, unclear regarding the location of the panel 12 relative to the frame 14g and its fasteners 15. Finally, nothing in the language of the patents helps to explain Figure 4C in this regard.

Figure 10 utterly fails to provide further clarity. Notably, Figure 10 identifies no fastening elements, such as by reference numeral:

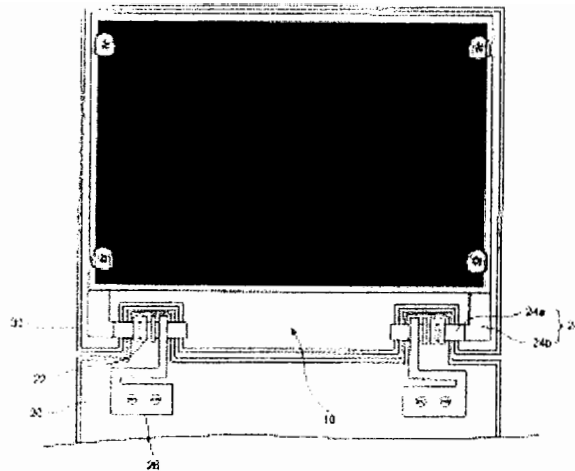


FIG. 10

The common specification, likewise, is silent as to any fastening elements with respect to Figure 10. LPL's reliance on what is, at best, an ambiguous artifact in Figure 10 does not further their argument. Indeed, one skilled in the art considering Figure 10 and its accompanying description in the common specification could only speculate as to the location of the fasteners with respect to the panel.

Given the context of the invention and that the phrase "on or inside the border of the flat display panel" is not found in the intrinsic evidence, the Special Master concludes that one skilled in the art would understand "rear mountable" excludes front and side mounting, rather than defining the location of the fasteners with respect to the border of the panel.<sup>15</sup>

Accordingly, the Special Master's construction is as follows:

<sup>15</sup> The term "rear mountable" connotes the capability of being rear mounted, and therefore the term "rear mounted" does not need to be construed. Similarly, the phrase "flat display panel that is rear mounted" does not require construction.

| CLAIM TERM     | SPECIAL MASTER CONSTRUCTION   |
|----------------|---|
| rear mountable | A flat-panel display device that is capable of being mounted to a housing solely from the back of the first frame and that has no front or side mounting fastening elements |

### 3. Housing; Display Case/Case

#### a. *The Parties' Constructions*

LPL argues that “housing” should be given its ordinary and customary meaning. Defendants assert that “housing” should be limited to a case and body of a portable computer. Defendants argue that the inventors became their own lexicographers, when in response to an objection by the examiner, they stated a definition of housing as a display case or case and body.<sup>16</sup> See ‘641 and ‘718 patents, 4:54-56 and 6:12-15.

#### b. *The Special Master's Constructions*

Unless a patentee becomes his own lexicographer by using terms in a manner other than their ordinary meaning by clearly stating the special definition in the specification or prosecution history, words in a claim are given their ordinary meaning. *Vitronics*, 90 F.3d at 1582. The Special Master is of the view that no such clear statement of a special definition exists. In fact, the intrinsic evidence contains no explicit definition connecting “housing” to a portable computer.

Addressing the Defendants' argument that housing was defined in response to the examiner's objection, the Special Master is mindful that a patent examiner's objection is distinct from a rejection. In this regard, an objection does not relate to the patentability of the claims.

<sup>16</sup> Defendants reference a rejection by the examiner; however, it is clear by the prosecution history that the examiner merely disagreed with the use of the term “housing.”

According to M.P.E.P. § 706.01: “[t]he refusal to grant claims because the subject matter as claimed is considered unpatentable is called a ‘rejection.’ The term ‘rejection’ must be applied to such claims in the examiner’s action. If the form of the claim (as distinguished from its substance) is improper, an ‘objection’ is made.” The amendments made by the inventors addressed a formality raised by the examiner’s rejection, i.e., antecedent basis, and were therefore non-substantive and, to coin a phrase, “merely cosmetic.” *Cf. AK Steel Corp. v. Sollac & Ugine*, 344 F.3d 1234, 1242 (Fed. Cir. 2003) (“There was no indication that the amendment was made to relinquish claim scope; rather it was made in response to the examiner’s request to replace language that he found vague with language that he felt ‘more specifically defined’ the same material. Under those circumstances, the amendment clarified the claims without changing their scope.”). Moreover, “an inventor may choose to be his own lexicographer if he defines the specific terms used to describe the invention ‘**with reasonable clarity, deliberateness, and precision.**’” *Teleflex, Inc. v. Ficosa N. Am. Corp.*, 299 F.3d 1313, 1325 (Fed. Cir. 2002) (quoting *In re Paulsen*, 30 F.3d 1475, 1480 (Fed. Cir. 1994)) (emphasis supplied). Further, the Special Master finds it noteworthy that the amendment resulted in housing being expressed two different ways, one somewhat more specific than the other, but in no event in the Special Master’s view, in a way clearly stated.<sup>17</sup> Because “housing” was not defined with reasonable clarity, deliberateness, and precision, the Special Master concludes that “housing” should be accorded its ordinary meaning.

The term “display case” is recited only in claim 40 of the ‘718 patent. Based on the plain language of the claim, i.e., “arranging the LCD device on ... a display case” and “attaching the

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<sup>17</sup> “Together, the case and body may be referred to as a housing ...” ‘641 patent, 4:48-49. “... the body (first portion) and the display case (second portion) (collectively referred to as a housing) ...” ‘641 patent, 6:6-8.

LCD device to the display case,” the flat-panel display device is both arranged on and attached to the display case. Also, the common specification associates the term “display case” with “housing.” There is no special definition attributed to the term.

Accordingly, the Special Master’s constructions are as follows:

| CLAIM TERM        | SPECIAL MASTER CONSTRUCTION  |
|-------------------|--|
| Housing           | An outer casing or enclosure   |
| display case/case | The portion of the housing onto which the flat-panel display device is arranged and attached |

#### **4. Data Processing Device**

##### ***a. The Parties’ Constructions***

LPL also argues that “data processing device” should be accorded its ordinary and customary meaning. Defendants urge limiting “data processing device” to a portable computer.

##### ***b. The Special Master’s Constructions***

Having already concluded that the invention is not restricted to a portable computer, and, additionally, the term “data processing device” not being specifically defined in either the claim language itself or the common specification of the patents, the Special Master concludes that “data processing device” should be given its ordinary and customary meaning. *Vitronics*, 90 F.3d at 1582.

The term “data processing device” is well known in the art. The *IEEE Standard Computer Dictionary* (1991) defines “data processing” as “the systematic performance of



operations on data”<sup>18</sup> and “device” as “a mechanism or piece of equipment designed to serve a purpose or perform a function.”

At the same time, the Special Master is of the view that the Defendants raise the meritorious argument that LPL’s construction is improper because one of ordinary skill in the art would conclude that is not physically possible to mount a flat-panel display device to a component that is contained within the flat-panel display device – if so, the “housing of the data processing device” would in reality be the housing of the flat-panel display device. The Special Master concludes therefore that the plain claim language “flat panel display device capable of being mounted to a data processing device ... the flat display panel ... being fixed to a housing of the data processing device” (‘641 patent, claim 35) mandates that the flat-panel display device be separate from the “data processing device” so as to be able to be fixed to the housing of the “data processing device.”

Accordingly, the Special Master’s construction is as follows:

| CLAIM TERM             | SPECIAL MASTER CONSTRUCTION   |
|------------------------|---|
| data processing device | A mechanism or piece of equipment separate from the flat-panel display device that systematically performs operations upon data |

## 5. Flat-Panel Display Device/ LCD Device

### a. *The Parties’ Constructions*

LPL argues that the “flat panel display device” is simply an apparatus with at least a flat display panel and supporting frames. Defendants assert that in the context of the invention, a

<sup>18</sup> Although the referenced dictionary is dated prior to the filing date of the patents-in-suit, the *Authoritative Dictionary of IEEE Standard Terms* (7<sup>th</sup> ed. 2000), contains the identical definition for “data processing.”

“flat panel display device” includes a sandwich of layers or stack of components, including the flat display panel, held together or assembled by the first and second frames. ViewSonic further asserts that the stack of components are assembled along the edges. Defendants argue that the intrinsic record mandates such a construction and specifically point to the description in the common specification of an LCD device for support.<sup>19</sup> ViewSonic also submits that under LPL’s construction, a portable computer would be a flat-panel display device, thereby rendering superfluous the non-asserted claims’ term “portable computer.”

***b. The Special Master’s Constructions***

Based on the express language of the claims, the Special Master does not adopt that portion of Defendants’ constructions requiring multiple layers assembled or held together, along the edge or otherwise. The Special Master does agree with the Defendants, however, that the flat-panel display device includes the first and second frames.

The language of claims 55 and 56 provides a definition of flat-panel display device. ‘641 patent, 12:1-18. Tellingly, both claims recite that the flat-panel display device includes only three main elements, namely a first frame, a second frame, and a flat display panel disposed there between. Thus, to limit the flat-panel display device to one that includes multiple layers would be contrary to the claim language and would, in the Special Master’s view, improperly read in the preferred embodiment of an LCD device. Mindful that other claims recite multiple layers, such as the backlight unit of claim 35 of the ‘641 patent, the Special Master adopts a construction that includes *at least* a flat display panel.

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<sup>19</sup> For example, Defendants cite to the ‘641 patent, 1:42-45: “The LCD device 130 has an LCD panel 132, a backlight device 134 fixed to the back of the LCD panel 132, and a supporting frame 136 for assembling the LCD panel 132 and the backlight device 134 along the edge.”

Additionally, the claim language further specifies that the flat display panel of the device is located between, or sandwiched by, the first and second frames. Claim 35 of the '641 patent recites, for example, that the "flat display panel is between the first and second frames." The claim term "between" does not require, however, that the panel and frames be assembled as Defendants argue. Instead the claim merely defines the location of the flat-display panel relative to the frames. The Special Master therefore concludes that requiring the frames and panel to be assembled, whether along the edges or not, improperly reads in the preferred embodiment from the common specification.

The term "LCD device," on the other hand, is specifically called out in claim 40 of the '718 patent. Because the language of claim 40 itself does not expressly define an LCD device, the common specification provides the best definition for that term. *Phillips v. AWH Corp.*, 415 F.3d at 1315 ("The specification 'is always highly relevant to the claim construction analysis. Usually, it is dispositive; it is the single best guide to the meaning of a disputed term.'") (internal citation omitted). Referring to Figures 4A-4C, the common specification defines the LCD device as an LCD panel, a backlight unit, and a supporting frame. '718 patent, 4:17-21. Also, Figure 4C shows that the backlight unit 14 and the panel 12 are disposed between the frames 14g and 16.

Accordingly, the Special Master's constructions are as follows:

| CLAIM TERM                          | SPECIAL MASTER CONSTRUCTION   |
|-------------------------------------|---|
| flat panel display device           | A display device having at least a flat display panel sandwiched by the first and second frames                         |
| liquid crystal display (LCD) device | A display device including a LCD panel and a backlight unit both of which are sandwiched by the first and second frames |

**6. First Frame; Second Frame**

**a. *The Parties' Constructions***

LPL argues that based on its ordinary meaning and when read in context of the claim, the term “first frame” broadly means a structure enclosed by the housing supporting the flat display panel. Defendants, on the other hand, define the first frame more specifically as a rear structure that alone or together with the second frame sandwiches and assembles multiple layers to form the device. Both LPL and Defendants construe the “second frame” in relation to the “first frame.” LPL, however, merely requires that the second frame be located such that the flat display panel is between the first and second frames. Commensurate with their construction of “first frame,” Defendants argue that the second frame is a front structure that together with the first frame sandwiches and assembles multiple layers to form the device.

**b. *The Special Master's Constructions***

Read in context with the claim language, the Special Master concludes that the first frame is at the rear of the flat-panel display device. In this regard, for example, each of claims 35, 55 and 56 of the '641 patent requires that the flat display panel be mounted to a housing “through a fastening part at the *rear* surface of the first frame.” Given that the claims recite that the flat-panel display device is “*rear* mountable,” it follows that the first frame, which, by the claim

language, includes the fastening part at its rear surface for that rear mounting, must be at the rear of the device. And because the flat display panel is between the first and second frames, the second frame (located opposite to the first frame) is necessarily at the front of the device. In the Special Master's view, the common specification supports this construction through its consistent description of the frames in relation to each other, and the depictions of the first and second frames as the structures at the rear and front, respectively, of the device. '641 patent, Figs. 4A-4C, 8, 9, 12-14, 4:21-22.

Finally, as discussed above, the plain claim language locates the flat display panel between the first and second frames. Nothing in the claim language, however, specifically requires multiple layers or that the frames assemble the layers or components of the device.

Accordingly, the Special Master's constructions are as follows:

| CLAIM TERM   | SPECIAL MASTER CONSTRUCTION   |
|--------------|---|
| first frame  | The structure at the back of the flat-panel display device that together with the second frame structure sandwiches at least the flat display panel |
| second frame | The structure at the front of the flat-panel display device that together with the first frame structure sandwiches at least the flat display panel |

## 7. Corners of the First Frame

### a. *The Parties' Constructions*

LPL argues that the "corners of the first frame" are areas located in or near the edges of the first frame and positioned on or inside the border of the flat display panel. Tatung asserts that the corners are the area at the back surface of a flat-panel display device near the intersection



of two of its side edges. ViewSonic construes the corners as places on the first frame where two of its side edges intersect.

***b. The Special Master's Construction***

Claims 38 and 39 recite that the fastening holes are at the corners of the first frame. In the context of the common specification, the Special Master is of the view that the corners of the first frame as they relate to the fastening elements are not at the exact place where two of its side edges intersect, as urged by ViewSonic. For example, as seen in Figure 4C of the patents, the holes 15 extend through the frame but not the edges themselves. Moreover, as discussed above regarding the term “rear mountable,” the fastening elements are not necessarily on or inside the border of the flat display panel. It follows that the phrase “corners of the first frame” is also not limited to being “on or inside the border of the flat display panel,” as asserted by LPL.

Accordingly, the Special Master's construction is as follows:

| CLAIM TERM                 | SPECIAL MASTER CONSTRUCTION  |
|----------------------------|--|
| corners of the first frame | The places at the rear surface of the first frame near the intersection of any two side edges of the first frame |

**8. Backlight Unit**

***a. The Parties' Constructions***

LPL construes “backlight unit” simply as an assembly that includes at least a backlight. Both Defendants base their constructions on the premise that “backlight unit” is well known in the art as being associated with an LCD. Each defendant, however, offers a different construction for that term. Tatung proposes that it means the layers of an LCD module from the first frame to the back of the LCD panel. ViewSonic submits that it means a lighting structure

including specific components, i.e., a reflector, a light guide film, a diffuser or protecting film, a prism sheet and the first frame. LPL responds that the Defendants' constructions read in the preferred embodiment, particularly that of Figure 4C of the patents.

***b. The Special Master's Construction***

The Special Master concludes that the term "backlight unit" is well known to one skilled in the art as relating to an LCD module. For example, in the prior art reference to Yun, a "back light unit" is described as including multiple components, such as a luminescent lamp 11, a lamp housing 12, a light 13, a reflector 14, a first prism sheet 16, a second prism sheet, a diffuser 18, and a first supporting frame 19. Yun patent, 1:16-32. Consistent with Yun, the common specification of the patents-in-suit describe a backlight unit 14 as part of an LCD device and including multiple layers, such as a protecting film 14a, first and second prism sheets 14b and 14c, a light guide 14e, diffuser 14d, a reflector 14f, and a first frame 14g. '641 patent, Fig. 4C, 4:18-26. Thus, one skilled in the art reading the claims in context of the common specification would understand that a backlight unit both relates to an LCD and includes multiple layers.

Additionally, the plain language of claim 35 requires that the backlight unit includes the first frame. '641 patent, 9:65-66. At the same time, as LPL argues, under the doctrine of claim differentiation the term "backlight unit" should not include specific components (such as those recited in dependent claims 40 and 41 of the '641 patent, namely "a reflector unit," "a light source unit," "a light guide film," "a diffuser unit," or "a prism unit," *see* '641 patent, 10:19-26). Finally, the Special Master does not adopt LPL's construction of "backlight unit" because it does not further define the term. It is axiomatic that a "backlight unit" would include a backlight.

Accordingly, the Special Master's claim construction is as follows:

| CLAIM TERM     | SPECIAL MASTER CONSTRUCTION  |
|----------------|--|
| backlight unit | The layers of the flat-panel display device which illuminate the flat-panel ( <i>or liquid crystal</i> ) display from behind |

## 9. Fastening Part/Element

### a. *The Parties' Constructions*

LPL asserts that based on the claim language, “fastening element” should be construed as an element that provides the capability of mounting one component to another. Defendants point to the common specification to limit their constructions of the term to specific structures, such as a hole together with the material defining the hole, pegs, screws, hooks, bolts, ribs, nails or other similar fasteners including a fastener with a compressible head. ViewSonic asserts that LPL’s construction introduces redundancy into the claim and improperly converts the term into a means-plus-function.

### b. *The Special Master’s Constructions*

Initially, the Special Master agrees with the parties that “fastening element” and “fastening part” are interchangeable. For simplicity, only fastening “element” is discussed.

That the term itself connotes a function, i.e., fastening, cannot be dismissed as mere redundancy. The function of fastening is supported in the Special Master’s view by the context of the claims which recite that the flat display panel is fixed to the housing via the fastening element. *See* claims 35, 55, and 56 of the “641 patent and claim 33 of the ‘718 patent. Moreover, “where a claim recites a function, but then goes on to elaborate sufficient structure, material, or acts within the claim itself to perform entirely the recited function, the claim is not in means-plus-function format.” *Sage Prods., Inc. v. Devon Indus., Inc.*, 126 F.3d 1420, 1427–28

(Fed. Cir. 1997). In this case, sufficient structure is recited in the claims. Given the stipulated construction of the term “fastening,” the Special Master’s construction is as follows:<sup>20</sup>

| CLAIM TERM             | SPECIAL MASTER CONSTRUCTION   |
|------------------------|---|
| fastening element/part | An element that provides the capability for attaching firmly or fixing securely so as to be supported, one component to another component |

# **10. Fastening Hole**

## ***a. The Parties’ Constructions***

LPL’s asserted construction of a “fastening hole” is similar to its construction of “fastening element” in that it incorporates the function of fastening. Defendants construe “fastening hole” simply as any hole.

## ***b. The Special Master’s Construction***

The Special Master concludes that like the term “fastening element,” the term “fastening hole” requires the function of fastening. This is supported by the claim language itself. For example, dependent claim 36 (incorporated into independent claim 35) recites the “first frame ... being fixed to a housing ... through the fastening hole at the rear surface of the first frame.” Thus, the “fastening hole” is not just any hole, but instead must fasten one component to another. Additionally, during prosecution of the patents, the inventors amended the common specification in response to an objection by the examiner. In doing so, the inventors described “fastening hole” relative to “fastening element”; that is “a fastening hole ... which together with the material defining the hole may be ... a fastening element.” *See* 4:60-64 of the ‘641 and ‘718 patents.

<sup>20</sup> Because the terms first frame and fastening element/part have been construed, the phrase “the first frame having a fastening element/part” does not need to be defined.

Thus, to meet the function of fastening, one skilled in the art would understand that the “fastening hole” necessarily includes the material defining the hole. Coupled with the common and ordinary meaning of a “hole,” the Special Master’s construction is as follows:

| <b>CLAIM TERM</b> | <b>SPECIAL MASTER CONSTRUCTION</b>  |
|-------------------|---|
| fastening hole    | An opening, together with the material defining the opening, that provides the capability for attaching firmly or fixing securely so as to be supported, one component to another |

#### **11. Protruding portion/peg/stepped hole**

Each of the terms “protruding portion,” “peg,” and “stepped hole” should be accorded their plain and ordinary meaning. *Vitronics*, 90 F.3d at 1582. Accordingly, the Special Master’s constructions are as follows:

| <b>CLAIM TERM</b>  | <b>SPECIAL MASTER CONSTRUCTION</b>                           |
|--------------------|--|
| protruding portion | A protuberance that extends away from the flat display panel |
| peg                | A small cylindrical or tapered protuberance                  |
| stepped hole       | A countersunk hole   |

#### **12. Capable of Being Mounted; Capable of Being Fixed**


“Capable of being” does not require construction, particularly because both of the terms “mounted” and “fixed” have stipulated constructions.

\* \* \*

The Special Master's claim construction of the disputed terms of U.S. Patent No. 6,501,641 and U.S. Patent No. 6,498,718 are summarized in Appendix A, which is incorporated herein by reference.

**The Special Master's Report and Recommendation will become a final order of the Court unless exceptions are taken by July 6, 2007 as required by the Second Amended [Omnibus] Rule 16 Scheduling Order dated March 9, 2007.**

ENTERED THIS 15th DAY OF JUNE, 2007,

  
\_\_\_\_\_  
Vincent J. Poppiti (DSBA No. 100641)  
Special Master



## APPENDIX A

| CLAIM TERMS                | SPECIAL MASTER CONSTRUCTION   |
|----------------------------|---|
| attaching                  | Attaching firmly or fixing securely so as to be supported   |
| backlight unit             | The layers of the flat- panel display device which illuminate the flat- panel ( <i>or liquid crystal</i> ) display from behind  |
| corners of the first frame | The places at the rear surface of the first frame near the intersection of any two side edges of the first frame  |
| data processing device     | A mechanism or piece of equipment separate from the flat panel display device that systematically performs operations upon data   |
| display case/case          | The portion of the housing onto which the flat panel display device is arranged and attached  |
| fastening                  | Attaching firmly or fixing securely so as to be supported   |
| fastening element/part     | An element that provides the capability for attaching firmly or fixing securely so as to be supported, one component to another component   |
| fastening hole             | An opening, together with the material defining the opening, that provides the capability for attaching firmly or fixing securely so as to be supported, one component to another |
| first frame                | The structure at the back of the flat- panel display device that together with the second frame structure sandwiches at least the flat display panel                              |
| fixed                      | Attached firmly or fixed securely so as to be supported   |
| flat display panel         | The component within a flat panel display device on which the image appears   |
| flat panel display device  | A display device having at least a flat display panel sandwiched by the first and second frames   |

|                                     |  |
|-------------------------------------|--|
| housing                             | An outer casing or enclosure   |
| liquid crystal display (LCD) device | A display device including a LCD panel and a backlight unit both of which are sandwiched by the first and second frames  |
| mounted                             | Attached firmly or fixed securely so as to be supported  |
| peg                                 | A small cylindrical or tapered protuberance  |
| protruding portion                  | A protuberance that extends away from the flat display panel   |
| rear mountable                      | A flat- panel display device that is capable of being mounted to a housing solely from the back of the first frame and that has no front or side mounting fastening elements |
| second frame                        | The structure at the front of the flat- panel display device that together with the first frame structure sandwiches at least the flat display panel                         |
| stepped hole                        | A countersunk hole   |